

PEER INTERACTION DYNAMICS IN SHAPING SOCIAL BEHAVIOR AMONG 3–4 YEAR OLD CHILDREN IN PLAYGROUP SETTINGS

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ABSTRACT

Early childhood social behavior development is a fundamental aspect that underlies children's ability to interact and adapt to their social environment. At the age of 3–4 years, children are in the early stage of social learning, characterized by limited emotional regulation and egocentric tendencies, thus requiring meaningful peer interaction experiences. Studies examining the dynamics of social interaction at this specific age range, particularly within playgroup settings, remain relatively limited. This study aims to analyze the role of peer interaction in shaping the social behavior of children aged 3–4 years at Kelompok Bermain Abdi Desa Kalasan. This research employed a qualitative descriptive approach. The research subjects consisted of children aged 3–4 years as the main participants and educators as supporting informants. Data were collected through observation, interviews, and documentation. Data analysis involved data reduction, data display, and conclusion drawing, while data validity was ensured through source and technique triangulation. The findings indicate that peer interactions emerged in several forms, including parallel, associative, early cooperative, and conflict interactions. These interaction patterns contributed to the development of children's social behaviors, such as sharing, simple cooperation, early empathy, and rule-following abilities. Although children's emotional regulation is still developing, continuous peer interaction supported by educators positively contributes to social behavior development. This study confirms that peer interaction serves as an important medium for social learning in early childhood playgroup settings.

Keywords: Peer interaction, Social behavior, children aged 3–4 years, playgroup

INTRODUCTION

The social development of early childhood is a fundamental aspect that serves as the foundation for the formation of interpersonal behavior and social adaptability in later developmental stages. At the age of 3–4 years, children are in a crucial transitional phase from egocentric behavior toward the initial ability to understand others, follow simple rules, and establish social relationships through play activities. Social experiences acquired during this stage have long-term impacts on character

formation, emotional regulation, and children's readiness to interact within broader social environments.

Social interaction in early childhood primarily develops through relationships with significant others, including peer interactions. In the context of early childhood education, peers represent the first social environment outside the family that provides opportunities for children to learn sharing, cooperation, emotional expression, and simple conflict resolution. Peer interaction not only functions as a social activity but also serves as a medium for social learning that helps children understand norms, roles, and acceptable behavioral boundaries within their social environment.

However, the dynamics of early childhood social development currently face various challenges. Changes in interaction patterns in modern life, such as increased use of digital devices, reduced direct social play, and increasingly individualistic environments, may limit children's opportunities to actively engage with peers. These conditions may result in less optimal social behaviors, such as difficulties in sharing, low empathy, limited cooperation skills, and the emergence of social conflicts that children are not yet able to manage independently.

At the age of 3–4 years, children's social-emotional characteristics are marked by limited emotional regulation, egocentric tendencies, and developing communication skills. These conditions often lead to peer interactions being accompanied by simple conflicts, such as disputes over toys or differences in play preferences. Nevertheless, social conflict in early childhood is not always negative; instead, it can serve as a medium for social learning when supported by a responsive environment and appropriate guidance. Through repeated interaction processes, children gradually learn to adjust their behavior, understand others' emotions, and develop more adaptive social behaviors. (Ali, 2024)

Several previous studies have examined social interaction among early childhood in the context of peer relationships. A study entitled "*Social Interaction Patterns of Early Childhood with Peers at TK Labbaika Samarinda*" found that children develop social interactions through shared play activities, simple communication, and cooperation in group activities. These findings highlight that peer interaction plays an important role in the development of children's social abilities. Another study entitled "*The Relationship between Peer Social Interaction and the Level of Independence among Preschool Children at TK ABA, Tanggul District, Jember Regency*" revealed a significant relationship between the quality of peer interaction and the development of children's independence. This study emphasizes that social interaction contributes to the broader aspects of child development.

However, these studies primarily focus on general descriptions of social interaction and its relationship with specific developmental aspects, and were conducted within kindergarten settings. Studies that specifically examine the dynamics of peer interaction among children aged 3–4 years within the natural context of playgroup environments remain relatively limited. Therefore, this study aims to fill this gap by comprehensively analyzing the forms of peer interaction and their role in shaping the social behavior of children aged 3–4 years.

Based on these conditions, there is a need for research that is able to comprehensively describe the forms of peer interaction and their role in shaping the social behavior of children aged 3–4 years, particularly within the context of early childhood education. This study offers novelty by specifically focusing on children

aged 3–4 years within a natural playgroup context, an area that remains underexplored in previous research. This study aims to analyze the role of peer interaction in shaping the social behavior of children aged 3–4 years in a playgroup setting using a qualitative approach. The findings of this study are expected to provide theoretical contributions to the development of early childhood social development studies, as well as practical implications for educators, caregivers, and early childhood education institutions in designing learning environments that optimally support children's social development.

METHODS

This study employed a qualitative approach with a descriptive research design. The research was conducted at Abdi Desa Kalasan Playgroup, focusing on the dynamics of peer interaction among children aged 3–4 years. The research subjects consisted of children aged 3–4 years who were involved in play activities, as well as educators who facilitated the learning process. The study was conducted from December 2025 to January 2026.

The research subjects consisted of children aged 3–4 years as the primary participants and educators as supporting informants. The subjects were selected purposively by considering the children's involvement in peer group play activities. Data were collected through participant observation of children's play activities, interviews with educators, and documentation of learning activities. The data were analyzed qualitatively through the stages of data reduction, data display, and conclusion drawing. The trustworthiness of the data was ensured through source and technique triangulation.

RESULTS AND DISCUSSION

The findings indicate that peer interactions among children aged 3–4 years at Abdi Desa Kalasan Playgroup demonstrate a gradual developmental pattern, including parallel, associative, and early cooperative interactions. (Coplan & Rubin, 1998; Liman, 2024; Neri Tejada et al., 2024) This pattern aligns with established theories of early childhood social development, which emphasize a progression from individually oriented play toward more complex and socially engaged forms of interaction.

The predominance of parallel interaction suggests that children at this age are still in the early stages of social development, where they tend to play alongside peers without fully engaging in direct collaboration. According to Parten (Parten, 1932), parallel play is a common characteristic of young children who are beginning to develop social awareness but have not yet acquired the skills necessary for sustained cooperative interaction. This stage reflects children's growing interest in peers while maintaining a focus on their own activities.

At the same time, the emergence of associative and early cooperative interactions indicates a transitional phase in which children begin to interact more actively with their peers. These forms of interaction involve sharing materials, communicating, and showing initial attempts at collaboration, although the activities may not yet be fully organized toward a shared goal. As noted by Coplan and Rubin (Coplan & Rubin, 1998; Liman, 2024), such interactions play a critical role in

fostering social competence, as they provide opportunities for children to practice communication, negotiation, and emotional regulation skills.

Furthermore, this developmental progression may be influenced by contextual factors within the playgroup environment, including teacher facilitation, classroom structure, and peer dynamics. A supportive and stimulating environment can encourage children to move beyond parallel play and engage in more complex forms of social interaction. This is consistent with the findings of Saleha and Vitaloka (Saleha & Vitaloka, 2025; Wu & Ko, 2024), who highlight the importance of guided interaction in promoting early cooperative behaviors among young children. Overall, these findings suggest that peer interaction among children aged 3–4 years is a dynamic and evolving process. The transition from parallel to associative and early cooperative interaction reflects the gradual development of social skills and highlights the importance of providing developmentally appropriate opportunities for social engagement in early childhood settings (Ünlüer, 2024).

Paralel Interaction

The findings indicate that parallel interaction is the most dominant form of interaction among children aged 3–4 years at Abdi Desa Kalasan Playgroup. In this context, children tend to play within the same physical space while remaining primarily focused on their individual activities rather than engaging in direct social exchange. Based on observational data, “two children at Abdi Desa Kalasan Playgroup were playing side by side using their own blocks. Both were focused on their own play without engaging in direct conversation, although they occasionally glanced at each other” (Observation, 2026). A similar pattern was also observed during drawing activities, where each child demonstrated greater attention to their own work than to interactions with peers.

This pattern reflects a typical characteristic of early social development in preschool-aged children. According to Parten’s stages of play (Parten, 1932), parallel play represents a significant phase in which children begin to show awareness of others without fully participating in cooperative or interactive activities. At the age of 3–4 years, children are still largely in an egocentric stage of development, as described in cognitive developmental theory, where their ability to take others’ perspectives remains limited (Piaget & Inhelder, 2008; W. Santrock, 2010). As a result, although children are physically close to their peers, their interactions remain minimal and self-focused.

Furthermore, the dominance of parallel interaction can also be associated with the ongoing development of language and social-emotional competencies. Children at this stage are still acquiring essential communication skills, such as initiating conversations, responding appropriately, and regulating emotions during social encounters (Berk & Winsler, 1995; Coplan & Rubin, 1998; Fawaid et al., 2025). Limited verbal ability and emotional regulation may reduce children’s confidence in engaging directly with peers, leading them to prefer individual engagement while observing others’ activities from a distance. In this sense, parallel play serves as a low-risk social context in which children can gradually familiarize themselves with peer presence. (Howes, 1988; W. Santrock, 2010).

In addition, parallel interaction should not be interpreted as a lack of social development; rather, it represents an important foundational stage that supports later social competence. Through observing peers, children begin to internalize

social norms, learn new behaviors, and develop an understanding of shared environments (Rubin et al., 2006). These observational experiences contribute to the gradual transition toward more interactive forms of play, such as associative and cooperative interactions. Within the context of early childhood education, parallel play can therefore be understood as a constructive and developmentally appropriate phase. As highlighted by Mulyasa (Mulyasa, 2017), this stage allows children to build a sense of security, adapt to social settings, and prepare for more complex interpersonal engagement. The role of educators is crucial in this process, as they can facilitate opportunities for interaction through guided activities, modeling communication, and creating a supportive classroom environment that encourages children to move beyond individual play.

Overall, the dominance of parallel interaction among children aged 3–4 years at Abdi Desa Kalasan Playgroup reflects a normal and expected stage of development. It highlights the gradual nature of social interaction development, where children progress from individual engagement toward more collaborative forms of play as their cognitive, emotional, and communicative abilities continue to mature. (Denham et al., 2003; Strain et al., 1986)

Associative Interaction

The findings indicate that associative interaction begins to emerge among children aged 3–4 years at Abdi Desa Kalasan Playgroup through shared play activities involving the use of play materials in turns. In this situation, children begin to show interest in engaging with their peers, although clear role distribution within the play has not yet been established. Based on observational data, “several children at Abdi Desa Kalasan Playgroup were playing using the same set of blocks. The children took turns borrowing toys and engaged in brief verbal exchanges such as, ‘I want this one,’ without any structured rules of play” (Nurani, 2019; Observation, 2026; Spradley, 2016) This condition reflects a more active level of social engagement compared to parallel interaction.

These findings tend to indicate the development of children’s social awareness toward the presence of their peers. According to Parten’s stages of play (Parten, 1932), associative interaction is characterized by an increased frequency of communication and children’s involvement in shared play activities without complex organization of the play itself. At the age of 3–4 years, children’s language and social abilities are developing in ways that support the emergence of simple cooperation. Their growing vocabulary and improved communication skills enable them to initiate interactions, respond to peers, and participate in shared activities, although these interactions may still be inconsistent and situational (Santrock, 2011; Denham, 2006; Coplan & Rubin, 1998). In addition, from a sociocultural perspective, interaction with peers plays an important role in supporting children’s learning and development through social engagement and guided participation (Bodrova & Leong, 2018; Vygotsky, 1978).

In the context of early childhood education, associative play plays a crucial role in helping children develop skills in sharing, communication, and adaptation to the social environment (Ladd, 2005). Through these interactions, children begin to understand social rules, negotiate roles, and develop early forms of cooperation, which are essential for more complex social participation. Thus, the associative interaction identified in this study can be understood as part of a gradual process in

the development of social competence in early childhood, bridging the transition from parallel to cooperative interaction (Strain et al., 1986)

Early Cooperative Interaction

The findings indicate that cooperative interaction begins to emerge among some children aged 3–4 years at Abdi Desa Kalasan Playgroup through play activities involving simple cooperation. At this stage, children begin to demonstrate the ability to coordinate with their peers in achieving shared play goals. Based on observational data, “two children at Abdi Desa Kalasan Playgroup worked together to build a block tower. One child said, ‘Put this one on top,’ while the other followed the instruction until the tower was successfully built together” (Observation Notes, 2026, n.d.). This situation reflects a simple division of roles and communication that supports the achievement of a common goal. (Amini, 2014; Bodrova & Leong, 2018)

These findings reflect the early stage of cooperative interaction as described in Parten’s stages of play (Justice et al., 2025; Parten, 1932), in which children begin to engage in organized play with shared objectives. Although the cooperative abilities of children aged 3–4 years remain relatively simple, the emergence of cooperative interaction indicates the development of more advanced social and communication skills (W. Santrock, 2010). From the perspective of early childhood education, cooperative play experiences contribute to the development of mutual respect, teamwork skills, and an understanding of social rules within a group (Mulyasa, 2017; Vygotsky & Cole, 1978). Thus, the cooperative interaction identified in this study can be understood as an indicator of the gradual development of children’s social competence marking the transition toward more complex and sustained forms of social interaction. (Brownell & Carriger, 1990; Nishio et al., 2026)

Conflict Interaction

The findings indicate that conflict interaction also emerges within the play dynamics of children aged 3–4 years at Abdi Desa Kalasan Playgroup. Conflicts generally occur when children compete over play materials or experience differences in preferences during play activities. Based on observational data, “a conflict occurred over a toy car at Abdi Desa Kalasan Playgroup when two children pulled the same object while saying, ‘It’s mine!’ The situation ended after the teacher provided guidance to both children” (Denham, 2023; Ummah, 2019) his event illustrates that conflict is an inherent part of children’s social interaction within group play contexts.

These findings can be interpreted as a characteristic of early childhood social-emotional development, in which children are still in an egocentric stage and tend to prioritize their own interests. From a developmental perspective, peer conflict is not always negative; rather, it can serve as a learning opportunity for children to understand social rules, regulate emotions, and develop problem-solving skills (Henny, 2022; Hurlock, 2013; Suryana, 2016). The role of the teacher in mediating conflict is crucial in helping children learn to resolve differences constructively. Thus, the conflict interaction identified in this study can be understood as a natural part of the social learning process in early childhood development. (Setiani, 2013; Sicim Sevim, 2025)

CONCLUSION

Based on the research findings, it can be concluded that peer interaction among children aged 3–4 years at Abdi Desa Kalasan Playgroup demonstrates a

gradual developmental pattern, progressing from parallel interaction to associative and early cooperative interaction, accompanied by the emergence of conflict interaction as part of children's social dynamics. The dominance of parallel interaction reflects the characteristics of early childhood social development, in which children are still in an egocentric stage, while the emergence of more complex forms of interaction indicates the development of social awareness and cooperative abilities.

Furthermore, this study highlights that peer interaction plays a significant role as a medium for social learning, through which children develop essential social competencies such as sharing, communication, cooperation, and early empathy. Conflict interaction, although often perceived negatively, also contributes to children's ability to regulate emotions and resolve simple social problems when supported by appropriate guidance.

These findings emphasize the importance of providing a conducive and responsive play environment, as well as the critical role of educators in facilitating and mediating children's social interactions. Therefore, optimizing peer interaction in early childhood education settings is essential to support the development of children's social competence in a comprehensive and sustainable manner.

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